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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,052

12/11/2003

Satoshi Maeda

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EXAMINER

HAN, JASON

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/733,052	Applicant(s) MAEDA ET AL.	
	Examiner Jason M Han	Art Unit 2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 3-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 7-15 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/11/03, 12/16/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>JP2000-292786</u> . |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed December 16, 2004 have been fully considered but they are not persuasive.
2. Applicant has amended independent Claims 1 and 10 to include the limitations found in dependent Claims 5-6.
3. It should be noted that the rejections under 35 U.S.C. 103(a) for Claims 5-6 still read upon all structural limitations found in the newly amended independent claims. The examiner further makes reference that the rejections stand under the broadest interpretation [MPEP 2111], and that recitations with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex Parte Masham*, 2 USPQ2d 1647 (1987).
4. Applicant's arguments with respect to Claim 7 have been considered but are moot in view of the new ground(s) of rejection.
5. All subsequent dependent claims stand rejected without argument from applicant.

Claim Objections

6. Claim 15 is objected to because of the following informalities: Applicant recites the limitation "the second side surface". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Taira et al. (U.S. Patent 5712694).

Taira discloses a lighting device including:

- light guide plate in the shape of a flat plate [Figure 20: (1506)];
- a light source unit [Figure 20: (1501, 1502, 1503, 1505)] disposed on the side of the light guide, which emits linearly polarized light [Column 17, Lines 52-56]; and
- a phase modulation element [Figure 20: (1504)] disposed between the light guide plate and the light source unit.

Note: Apparatus claims must be structurally distinguished from the prior art.

Claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531

(CCPA 1959). Apparatus claims cover what a device is, not what a device does.

Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15, USPQ2d 1525, 1528, (Fed. Cir. 1990). See MPEP 2114. Therefore, the recitation, “which emits linearly polarized light”, does not render any patentable weight.

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8. Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Taira et al. (U.S. Patent 5712694).

Taira discloses a light unit including:

- a liquid crystal panel [Column 6, Lines 45-50];
- a lighting device that further included a light guide plate in the shape of a flat plate [Figure 20: (1506)], a light source unit [Figure 20: (1501, 1502, 1503, 1505)] disposed on the side of the light guide plate, which emits a linearly polarized light [Column 17, Lines 52-56], and a phase modulation element [Figure 20: (1504)] disposed between the light guide plate and the light source unit.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. in view of Saito Takeshi et al. [Japanese Publication No. 2000-292786].

With regards to Claim 1, Taira discloses a lighting device comprising a light guide plate in the shape of a flat plate [Figures 9 and 10: (103); Column 6, Lines 12-14], a light source unit disposed on the side of said light guide [Figures 9 and 10: (101)], and a polarization separation element disposed between said light guide and source [Figures 9 and 10: (601)].

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Taira does not disclose a spot light emission source disposed on the end surface of a pillar-shaped light guide.

Saito Takeshi discloses a spot light emission source [Figures 2a and 12a: (13)] at an end of a pillar-shaped light guide, wherein light exits the pillar-shaped light guide at a first side surface [Figures 2a and 12a: (11)], and a reflecting member is disposed on a second side surface opposed to the first side surface [Figures 2a and 12a: (11a)]. Saito Takeshi further discloses that said second side is of a prism surface.

It would have been obvious to use the spot light source with the pillar shaped light guide of Saito Takeshi for the lighting device of Taira to provide a linear light source which lights up an object surface so that its luminance distribution is symmetrical with respect to the length of the linear light source. Spot light sources are generally LEDs, which are powerful and inexpensively available, and allow for manufacturing of a smaller, lighter, and efficient light source.

10. With regards to Claim 2, Taira in view of Saito discloses the claimed invention as cited above. In addition, Taira discloses a phase modulation element [Figure 10: (604)] disposed between a light source unit and a polarization separation element.

11. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. as applied to Claim 7 above, and further in view of Saito Takeshi et al. [Japanese Publication No. 2000-292786].

Taira discloses the claimed invention as cited above, but does not specifically teach a spot light emission source disposed on the end surface of a pillar-shaped light

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guide, whereby light exits the light guide at a first side surface (re: Claim 8) and a second side surface opposed to the first side surface is a prism surface (re: Claim 9).

Saito Takeshi discloses a spot light emission source [Figures 2a and 12a: (13)] at an end of a pillar-shaped light guide, wherein light exits the pillar-shaped light guide at a first side surface [Figures 2a and 12a: (11)], and a reflecting member is disposed on a second side surface opposed to the first side surface [Figures 2a and 12a: (11a)]. Saito Takeshi further discloses that said second side is of a prism surface.

It would have been obvious to use the spot light source with the pillar shaped light guide of Saito Takeshi for the lighting device of Taira to provide a linear light source which lights up an object surface so that its luminance distribution is symmetrical with respect to the length of the linear light source. Spot light sources are generally LEDs, which are powerful and inexpensively available, and allow for manufacturing of a smaller, lighter, and efficient light source.

12. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. in view of Saito Takeshi et al. [Japanese Publication No. 2000-292786].

With regards to Claim 10, Taira discloses a liquid crystal display device comprising a liquid crystal panel [Figure 31: (2604)] and a lighting device further comprising a light guide plate in the shape of a flat plate [Figure 31: (2611)], a light source unit [Figure 31: (2605)] disposed at the side of the said guide plate, and a polarization separation element [Figure 31: (2606): Column 4, Line 57 – Column 5, Line 24].

Taira does not disclose a spot light emission source disposed on the end surface of a pillar-shaped light guide.

Saito Takeshi discloses a spot light emission source [Figures 2a and 12a: (13)] at an end of a pillar-shaped light guide, wherein light exits the pillar-shaped light guide at a first side surface [Figures 2a and 12a: (11)], and a reflecting member is disposed on a second side surface opposed to the first side surface [Figures 2a and 12a: (11a)]. Saito Takeshi further discloses that said second side is of a prism surface.

It would have been obvious to use the spot light source with the pillar shaped light guide of Saito Takeshi for the lighting device of Taira to provide a linear light source which lights up an object surface so that its luminance distribution is symmetrical with respect to the length of the linear light source. Spot light sources are generally LEDs, which are powerful and inexpensively available, and allow for manufacturing of a smaller, lighter, and efficient light source.

13. With regards to Claim 11, Taira in view of Saito discloses the claimed invention as cited above. In addition, Taira discloses a liquid crystal display further comprising a phase modulation element [Figure 31: (2608) – an auxiliary light guiding plate] disposed between the light source unit and the polarization separation element. Taira teaches that the auxiliary light guiding plate serves as a light converting element [Column 20, Lines 35-43], whereby a “light converting element may be a diffusion member, a retardation film, or the combination thereof... As the retardation film, a half-wave film can be used... On the other hand, a quarter-wave film can be used [Column 5, Lines 35-50].”

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14. With regards to Claim 12, Taira in view of Saito discloses the claimed invention as cited above. In addition, Taira discloses a phase modulation element [Figure 31: (2610)] disposed between the liquid crystal panel and the lighting device.

15. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira et al. (U.S. Patent 5712694) as applied to Claim 13 above, and further in view of Saito Takeshi et al. (Japanese Publication 2000-292786).

Taira discloses the claimed invention as cited above, but does not specifically teach the light source unit being a spot light emission source disposed on the end surface of a pillar-shaped light guide.

Saito Takeshi discloses a spot light emission source [Figures 2a and 12a: (13)] at an end surface of a pillar-shaped light guide, whereby light exits the pillar-shaped light guide at a first side surface [Figures 2a and 12a: (11)], and wherein a second side surface [Figures 2a and 12a: (11a)] opposed to the first side surface is a prism surface.

It would have been obvious to use the spot light source with the pillar-shaped light guide of Saito Takeshi for the lighting device of Taira to provide a linear light source which lights up an object surface so that the luminance distribution is symmetrical with respect to the length of the linear light source. Spot light sources are generally LEDs, which are powerful and inexpensively available, and allow for manufacturing of a smaller, lighter, and efficient light source.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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JMH (1/31/2005)



JOHN ANTHONY WARD
PRIMARY EXAMINER